INOSR Experimental Sciences 15(3):95-99, 2025. **ISSN: 2705-1692**
©INOSR PUBLICATIONS **INOSRES1530000**
International Network Organization for Scientific Research
https://doi.org/10.59298/INOSRES/2025/1539599

Policy Advocacy and Healthcare Strengthening: The Role of NGOs in Influencing Anemia Treatment Guidelines in Uganda

Nambi Namusisi H.

School of Natural and Applied Sciences Kampala International University Uganda

ABSTRACT

Anemia remains a significant public health challenge in Uganda, particularly affecting vulnerable populations such as children under five and pregnant women. Despite various government initiatives, the burden of anemia persists, underscoring the need for effective interventions. Non-governmental organizations (NGOs) have become crucial players in advocating for policy reforms, implementing community-based health interventions, and improving healthcare access. This review examines the role of NGOs in influencing anemia treatment guidelines, focusing on their advocacy efforts, healthcare strengthening initiatives, and challenges faced in implementing effective anemia management strategies. It assesses the effectiveness of government policies and programs, highlights the contributions of NGOs in addressing gaps, and proposes policy recommendations for improved collaboration between the government and NGOs. The study emphasizes the importance of sustainable financing, innovative healthcare solutions, and culturally sensitive interventions to enhance anemia prevention and treatment in Uganda. By enhancing partnerships and addressing systemic barriers, more effective and sustainable strategies for anemia management can be developed, leading to improved health outcomes for Uganda's most vulnerable populations.
Keywords: Anemia, Uganda, Non-governmental organizations, Policy advocacy, Healthcare strengthening.

INTRODUCTION

Anemia is a significant public health concern in Uganda, contributing to high morbidity and mortality rates, particularly among vulnerable populations such as children under five and pregnant women [1]. The condition, characterized by a deficiency of red blood cells or hemoglobin, results in reduced oxygen-carrying capacity of the blood, leading to fatigue, weakness, and other severe health complications [2]. Anemia is commonly caused by nutritional deficiencies, particularly iron deficiency, infections such as malaria and helminth infestations, chronic diseases, and genetic disorders like sickle cell anemia. Despite various interventions by the Ugandan government and international health organizations, the burden of anemia remains high, underscoring the need for effective policies and strategic interventions [3]. In Uganda, anemia poses a serious health challenge, especially among high-risk groups. According to the Uganda Demographic and Health Survey (UDHS), anemia prevalence among children under five is alarmingly high, with approximately 53% of children in this age group affected [4]. Similarly, over 30% of pregnant women suffer from anemia, increasing the risk of maternal and neonatal complications, including preterm births, low birth weight, and increased perinatal mortality [5]. Malnutrition, inadequate dietary intake of essential nutrients such as iron, folic acid, and vitamin B12, as well as persistent infectious diseases like malaria and intestinal worms, exacerbate the problem. The Ugandan government has implemented several interventions to combat anemia, including iron and folic acid supplementation programs, deworming campaigns, malaria prevention strategies, and fortification of staple foods with essential micronutrients [6]. However, these efforts face significant challenges, including limited healthcare infrastructure, inadequate funding, and insufficient public awareness about anemia prevention and treatment. As a result, non-governmental organizations (NGOs) have emerged as crucial stakeholders in addressing these gaps. NGOs play a pivotal role in advocating for policy changes, implementing community-based health interventions, providing nutritional support, and partnering with local and global health agencies to improve anemia treatment and prevention [7]. Despite the efforts of the government and international

health organizations, anemia remains a widespread and persistent health challenge in Uganda. The inadequacy of treatment and prevention strategies stems from various systemic issues, including resource constraints, inconsistent policy implementation, and limited accessibility to quality healthcare services, especially in rural areas [8]. Moreover, there is a lack of coordination among key stakeholders, leading to fragmented interventions and inefficiencies in addressing anemia at both the national and community levels. NGOs have stepped in to bridge some of these gaps by offering supplementary health services, advocating for policy reforms, and conducting community-based awareness campaigns. However, the extent to which NGOs influence anemia treatment policies and the effectiveness of their interventions in Uganda remain underexplored. There is a need for a comprehensive assessment of the role of NGOs in shaping anemia treatment guidelines, their contributions to improving health outcomes, and the challenges they face in implementing their programs [9]. This study aims to assess the prevalence and causes of anemia in Uganda, focusing on children under five and pregnant women. It evaluates the effectiveness of government policies and programs for anemia prevention and treatment, examines the role of NGOs in advocating for and implementing anemia treatment and prevention strategies, and identifies challenges faced by NGOs in influencing treatment guidelines and providing healthcare interventions. The study is significant in several ways, as it provides a detailed analysis of the burden of anemia, highlighting its prevalence, causes, and impacts on public health. By evaluating government policies and interventions, the study sheds light on the strengths and weaknesses of existing strategies, identifying areas that require improvement. The study also highlights the contributions of NGOs in addressing anemia, recognizing their efforts in filling gaps left by government programs. The study identifies challenges faced by NGOs in shaping anemia treatment policies and implementing health programs, offering practical recommendations to mitigate these challenges and facilitate more efficient and sustainable interventions. Finally, the study proposes policy recommendations for improving collaboration between the government and NGOs in tackling anemia, leading to more coordinated efforts, improved resource allocation, and ultimately better health outcomes for the Ugandan population. Anemia remains a pressing public health issue in Uganda, with significant consequences for maternal and child health. While the government has made commendable efforts to address the problem, persistent challenges hinder the effectiveness of existing strategies. NGOs play a crucial role in supplementing government initiatives, advocating for policy changes, and implementing community-based interventions.

The Burden of Anemia in Uganda

Anemia, a condition where the blood lacks sufficient healthy red blood cells or hemoglobin, is a significant public health issue in Uganda, affecting various population groups and causing far-reaching implications for the nation's health and socio-economic well-being [10]. In Uganda, anemia is exacerbated by poor access to quality nutrition, healthcare, and sanitation. Malnutrition, particularly iron deficiency, is the leading cause, with poor dietary habits, limited access to nutrient-dense foods, and poverty contributing to malnutrition. Infectious diseases like malaria, which destroy red blood cells, also contribute to anemia prevalence. Genetic conditions like sickle cell disease, parasitic infections, and HIV/AIDS also exacerbate anemia rates. Anemia has profound economic and social implications, affecting productivity, maternal health, and child development [11]. It also impacts families, communities, and the nation's overall development. Addressing anemia requires improved nutrition, better healthcare access, targeted interventions for vulnerable populations, and addressing root causes such as infectious diseases and genetic conditions.

Role of NGOs in Anemia Policy Advocacy

NGOs play a crucial role in addressing anemia in Uganda by advocating for policies that prioritize prevention, diagnosis, and treatment. They raise awareness, drive research, and collaborate with local and international stakeholders to strengthen health systems [12]. NGOs influence policy formulation and implementation by serving as intermediaries between the community, government, and international bodies. They advocate for anemia as a public health priority, highlighting its high prevalence among vulnerable groups like children and pregnant women. They organize campaigns to raise awareness and garner political support for anemia-related health policies. They also advocate for nutritional interventions, promoting iron-rich foods and micronutrient supplements as part of national strategies to combat anemia. NGOs play a crucial role in evidence-based policymaking by conducting studies and publishing reports on anemia prevalence and treatment gaps in Uganda [13]. They conduct surveys and studies to assess the prevalence of anemia across different regions, identifying the most at-risk population groups. These data are then used to justify the prioritization of anemia in national health agendas. NGOs publish detailed reports on the current state of anemia, highlighting trends, gaps in treatment, and recommendations for action. They also assess treatment gaps and barriers, such as limited access to healthcare services, inadequate distribution of iron supplements, and a lack of public awareness. NGOs propose evidence-based solutions, such as improving distribution networks for anemia medications and fortifying staple foods, which inform policy reforms and interventions [14]. NGOs also monitor and evaluate the effectiveness of existing anemia-related interventions, ensuring that policies are achieving their intended outcomes and providing feedback for improving anemia management strategies. They collaborate extensively with governmental and international organizations to design

and implement anemia interventions, ensuring the sustainability of public health initiatives. These partnerships include partnering with the Ugandan Ministry of Health, WHO, UNICEF, and the Ugandan Ministry of Health to ensure anemia management is integrated into the national health framework, secure funding for anemia-related programs, and strengthen the capacity of healthcare providers in Uganda [15].

Strengthening Healthcare Systems for Anemia Management

Uganda's healthcare system is struggling with anemia, especially among vulnerable groups like children and those with chronic conditions. Non-governmental organizations (NGOs) have been instrumental in addressing these challenges through capacity building, improving access to essential treatments, and community-based interventions [16]. NGOs train healthcare workers on anemia diagnosis, prevention, and treatment, focusing on iron supplementation, blood transfusion services, and managing underlying causes like malaria and HIV/AIDS. They also provide ongoing education and support to keep healthcare workers updated on emerging trends and research related to anemia management. NGOs also run iron supplementation programs, improve blood transfusion services, and promote malaria prevention and treatment. Additionally, NGOs promote food fortification and micronutrient programs to improve the nutritional status of populations at risk of anemia. Fortification of foods like salt, flour, and cooking oil is an effective way to combat iron deficiency anemia in rural Uganda [17]. NGOs have implemented several programs to manage anemia, including Community Health Worker (CHW) programs, mobile clinics, community education campaigns, and nutrition and agricultural programs. These initiatives aim to provide basic care, education, and referral points for underserved populations, bridge the gap in access to healthcare, and promote iron-rich foods and nutrition. By addressing barriers to effective anemia care, NGOs are creating a sustainable healthcare environment that integrates anemia prevention and treatment into the broader health system, ensuring better health outcomes for all Ugandans.

Challenges in NGO-Led Anemia Advocacy and Healthcare Strengthening

NGOs in Uganda face significant challenges in advocating for and strengthening healthcare systems for anemia management. These include financial constraints, policy implementation difficulties, and cultural resistance. NGOs heavily rely on external donors for funding, which can create a lack of continuity in anemia management programs [18]. Limited government financial support also leaves NGOs with the majority of the funding burden. Long-term sustainability is also a challenge, as there is a lack of sustainable local funding and infrastructure. To address these issues, NGOs should diversify their funding sources, focus on building local capacity, and advocate for increased government investment in anemia-related healthcare. Cultural and behavioral barriers in Uganda hinder the effectiveness of anemia prevention and treatment strategies. Traditional beliefs about anemia, resistance to modern medical treatments, gender norms, and reluctance to accept malaria prevention measures are some of the barriers. To overcome these, NGOs should adopt culturally sensitive approaches to health education, involve women in healthcare decision-making, and use behavioral change communication strategies. Addressing these challenges will help create a more effective, sustainable, and culturally sensitive approach to anemia management in Uganda [19].

Future Directions and Policy Recommendations

Uganda has made progress in addressing anemia through various health interventions and NGO-led initiatives, but there is still much to be done. Future strategies should focus on strengthening collaboration, scaling up innovative approaches, and establishing sustainable financing models [20]. Key recommendations include formalizing public-private partnerships, advocating for policy integration, joint capacity building initiatives, and developing joint monitoring and accountability frameworks. Scaling up innovative approaches, such as incorporating digital health technologies and community health programs, can improve healthcare access and outcomes in resource-limited settings. Mobile health platforms, mobile diagnostics, community health worker programs, and community-based education and peer support networks can revolutionize anemia management in Uganda. These strategies can help bridge the gap between healthcare facilities and rural communities, enhance patient engagement and education, and ensure timely intervention [21]. Uganda needs to explore sustainable financing models for long-term anemia interventions. Public-private partnerships, national health insurance schemes, innovative financing models like social impact bonds, crowdfunding, and targeted taxation for health can help. These models incentivize measurable results, reduce dependency on short-term donor funding, increase capacity for long-term planning, and create a more resilient financing structure for anemia management. By enhancing collaboration between NGOs and the government, scaling up digital health tools, and exploring alternative funding sources, Uganda can achieve better health outcomes for its citizens [22].

CONCLUSION

Anemia remains a significant public health issue in Uganda, disproportionately affecting vulnerable populations like children under five and pregnant women. Despite government and NGOs' efforts, anemia continues to impose significant health and socio-economic burdens. NGOs play a crucial role in policy advocacy, evidence-based research, and healthcare strengthening, bridging treatment accessibility gaps and raising public awareness. However, challenges include limited financial resources, inadequate healthcare infrastructure, and cultural barriers. To overcome these, sustainable funding models, robust partnerships between the government and NGOs, and greater

cultural sensitivity in anemia prevention and treatment programs are needed. The future of anemia management in Uganda depends on strengthening these partnerships, scaling up innovative approaches, and ensuring the sustainability of interventions through alternative financing mechanisms. Addressing these strategic priorities can lead to more effective and sustainable anemia control, ultimately improving health outcomes for Uganda's most vulnerable populations.

REFERENCES

1. Bongomin, F., Olum, R., Kyazze, A.P., Ninsiima, S., Nattabi, G., Nakyagaba, L., Nabakka, W., Kukunda, R., Ssekamatte, P., Kibirige, D., Cose, S., Nakimuli, A., Baluku, J.B., Andia-Biraro, I.: Anemia in Ugandan pregnant women: a cross-sectional, systematic review and meta-analysis study. Tropical Medicine and Health. 49, 19 (2021). https://doi.org/10.1186/s41182-021-00309-z
2. Alum, E. U., Ugwu, O. P. C., Aja, P. M., Obeagu, E. I., Inya, J. E., Onyeije, P. E., Agu, E. and Awuchi, C. G. Restorative effects of ethanolic leaf extract of *Datura stramonium* against methotrexate-induced hematological impairments, Cogent Food & Agriculture, 2023; 9:1, DOI: 10.1080/23311932.2023.2258774.
3. Mukisa, A., Kasozi, D., Aguttu, C., Vuzi, P.C., Kyambadde, J.: Relationship between blood Lead status and anemia in Ugandan children with malaria infection. BMC Pediatrics. 20, 521 (2020). https://doi.org/10.1186/s12887-020-02412-2
4. Egba, S. I, Obeagu, E. I, Obeagu, G. U. Coexisting Conditions: Addressing Diabetes in Sickle Cell Anemia Care Int. J. Curr. Res. Med. Sci. (2023). 9(11): 23-28
5. Chen, Y., Zhong, T., Song, X., Zhang, S., Sun, M., Liu, X., Wei, J., Shu, J., Liu, Y., Qin, J.: Maternal anaemia during early pregnancy and the risk of neonatal outcomes: a prospective cohort study in Central China. BMJ Paediatr Open. 8, e001931 (2024). https://doi.org/10.1136/bmjpo-2023-001931
6. Obeagu, E I, Ali, M. M., Obeagu, G. U, Ugwu, O. P. C., Bunu, U. O. (2023). An Update of Aneamia in Adults with Heart Failure. *International Network Organization for Scientific Research. http://hdl.handle.net/20.500.12493/14516*
7. Sajadi, H.S., Ghadirian, L., Rajabi, F., Sayarifard, A., Rostamigooran, N., Majdzadeh, R.: Interventions to increase participation of NGOs in preventive care: A scoping review. Health Sci Rep. 5, e770 (2022). https://doi.org/10.1002/hsr2.770
8. Garnelo, L., Parente, R.C.P., Puchiarelli, M.L.R., Correia, P.C., Torres, M.V., Herkrath, F.J.: Barriers to access and organization of primary health care services for rural riverside populations in the Amazon. International Journal for Equity in Health. 19, 54 (2020). https://doi.org/10.1186/s12939-020-01171-x
9. Besançon, S., Sidibé, A., Sow, D.S., Sy, O., Ambard, J., Yudkin, J.S., Beran, D.: The role of non-governmental organizations in strengthening healthcare systems in low- and middle-income countries: Lessons from Santé Diabète in Mali. Glob Health Action. 15, 2061239. https://doi.org/10.1080/16549716.2022.2061239
10. Ali, M. M., Obeagu, E. I., Alum, E. U., Obeagu, G. U., Ugwu, O. P. C. and Bunu, U. M. An Update of Aneamia in Adults with Heart Failure. *INOSR Experimental Sciences*, 2023; **11**(2):1-16. https://doi.org/10.5281/zenodo.7791916
11. Beletew, B., Mengesha, A., Ahmed, M., Fitwi, A., Wudu, M.: Determinants of Anemia among HIV-Positive Children on Highly Active Antiretroviral Therapy Attending Hospitals of North Wollo Zone, Amhara Region, Ethiopia, 2019: A Case-Control Study. Anemia. 2020, 3720572 (2020). https://doi.org/10.1155/2020/3720572
12. Nuwabaine, L., Kawuki, J., Kamoga, L., Sserwanja, Q., Gatasi, G., Donkor, E., Mutisya, L.M., Asiimwe, J.B.: Factors associated with anaemia among pregnant women in Rwanda: an analysis of the Rwanda demographic and health survey of 2020. BMC Pregnancy Childbirth. 24, 328 (2024). https://doi.org/10.1186/s12884-024-06528-6
13. Ugwu, O. P. C., Obeagu, E. I., Obeagu, G. U. Anemia as a Prognostic Marker for Disease Progression in HIV Infection. *IAA Journal of Biological Sciences.* 2023; 11(1):33-44. https://doi.org/10.59298/IAAJB/2023/3.2.23310
14. Shenoy, S., Sharma, P., Rao, A., Aparna, N., Adenikinju, D., Iloegbu, C., Pateña, J., Vieira, D., Gyamfi, J., Peprah, E.: Evidence-based interventions to reduce maternal malnutrition in low and middle-income countries: a systematic review. Front Health Serv. 3, 1155928 (2023). https://doi.org/10.3389/frhs.2023.1155928
15. Obeagu, E.I.: Public–private partnerships in tackling sickle cell disease ... : Annals of Medicine and Surgery.
16. Montgomery, L., Misinde, C., Komuhangi, A., Kawooya, A.N., Agaba, P., McShane, C.M., Santin, O., Apio, J., Jenkins, C., Githinji, F., MacDonald, M., Nakaggwa, F., Nanyonga, R.C.: Tackling the escalating burden of care in Uganda: a qualitative exploration of the challenges experienced by family carers of patients with chronic non-communicable diseases. BMC Health Services Research. 23, 1356 (2023). https://doi.org/10.1186/s12913-023-10337-6

17. Ugwu, O. P. C. Obeagu, E. I., Obeagu, G. U., Alum, E. U. Persistent Immune Activation and Chronic Inflammation: Unraveling Their Impact on Anemia in HIV Infection. *INOSR Experimental Sciences*. 2023; 12(3):73-84. https://doi.org/10.59298/INOSRES/2023/7.3.21322
18. Kermani, F., Reandi, S.T.A.: Exploring the Funding Challenges Faced by Small NGOs: Perspectives from an Organization with Practical Experience of Working in Rural Malawi. RRTM. 14, 99–110 (2023). https://doi.org/10.2147/RRTM.S424075
19. Malikhao, P.: Health Communication: Approaches, Strategies, and Ways to Sustainability on Health or Health for All. Handbook of Communication for Development and Social Change. 1015–1037 (2020). https://doi.org/10.1007/978-981-15-2014-3_137
20. Udeozor P A, Precious A U, Ibiam U A, Uti D E, Umoru G U, Onwe E N, Mbonu F. O, Omang W A, Anaga C O, Mbah J O, Ijoganu S J, Nwadum S K. (2022).. Antioxidant and anti-anemic effects of ethanol leaf extracts of Mucuna poggei and Telfairia occidentalis in phenyl-hydrazine-induced anemia in Wistar albino rats. Ibnosina Journal of Medicine and Biomedical Sciences, 2022. 14(03): p. 116-126.
21. Kok, M.O., Terra, T., Tweheyo, R., van der Hoeven, M., Ponce, M.C., van Furth, M.T., Rutebemberwa, E.: Using telehealth to support community health workers in Uganda during COVID-19: a mixed-method study. BMC Health Services Research. 23, 284 (2023). https://doi.org/10.1186/s12913-023-09217-w
22. Rajabi, M., Ebrahimi, P., Aryankhesal, A.: Collaboration between the government and nongovernmental organizations in providing health-care services: A systematic review of challenges. Journal of Education and Health Promotion. 10, (2021). https://doi.org/10.4103/jehp.jehp_1312_20

CITE AS: Nambi Namusisi H. (2025). Policy Advocacy and Healthcare Strengthening: The Role of NGOs in Influencing Anemia Treatment Guidelines in Uganda. INOSR Experimental Sciences 15(3):95-99. https://doi.org/10.59298/INOSRES/2025/1539599